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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/986,210

10/22/2001

Min-Goo Kim

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EXAMINER

VLAHOS, SOPHIA

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

07/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/986,210

Applicant(s)

KIM ET AL.

Examiner

SOPHIA VLAHOS

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.  
2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-19 is/are allowed.  
6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 21 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

#### *Priority*

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea (2000-62153) on 10/21/2000. **It is noted, however, that applicant has not filed a certified copy of the 2000-62153 Korean application as required by 35 U.S.C. 119(b).**

#### *Allowable Subject Matter*

3. The following is an examiner's statement of reasons for allowance:

The prior art fails to teach or suggest alone or in combination: A method of generating a plurality of sub-codes with the same or different code rates for the input of a PLP (Physical Layer Packet) information bit stream and sequentially transmitting symbols with the sub-codes for time periods, comprising the steps of: determining a minimum code rate by which the number of the modulation symbols of the sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for the time period; as recited in claim 1 and in combination with other steps of the claim.

Claims 1-4 are allowed.

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The prior art of the record fails to teach or suggest alone or in combination: A method of transmitting packet data, comprising the steps of: determining a minimum code rate by which the number of modulation symbols of the sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for each time period; channel-interleaving the symbols of the sub-code generated at a minimum code rate, as recited in claim 5 and in combination with other steps of the claim.

Claims 5-7 are allowed.

The prior art of the record fails to teach or suggest alone or in combination: A method of transmitting packet data, comprising the steps of: determining a minimum code rate by which the number of modulation symbols of a sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for each time period; channel-interleaving the symbols of the sub-code generated at the minimum code rate; as recited in claim 8 and in combination with other steps of the claim.

Claims 8-10 are allowed.

The prior art of the record fails to teach or suggest alone or in combination: A device for transmitting packet data, comprising: a controller for determining a minimum

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code rate by which the number of modulation symbols generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for each time period; as recited in claim 11 and in combination with other elements of the claim.

Claims 11-13 are allowed.

The prior art of the record fails to teach or suggest alone or in combination: A device for transmitting packet data, comprising: a controller for determining a minimum code rate by which the number of modulation symbols generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for a time period; a channel interleaver for channel-interleaving the symbols of the sub-code generated at the minimum code rate; as recited in claim 14 and in combination with other elements of the claim.

Claims 14-16 are allowed.

The prior art of the record fails to teach or suggest alone or in combination: A device for transmitting packet data, comprising: a controller for determining a minimum code rate by which the number of modulation symbols of a sub-code generated by a predetermined modulation method is equal to or greater than the number of transmittable modulation symbols for a time period; a channel interleaver of channel-

interleaving the symbols of the sub-code generated at the minimum code rate; as recited in claim 17 and in combination with other elements of the claim.

Claims 17-19 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Qian (U.S. 7,145,917)

Lundby et. al., (U.S. 6,690,734)

Tong et. al., (U.S. 6,744,744)

Banister (U.S. 6,876,641)

Chouly et. al. (U.S. 6,052,821)

Pehkonen (U.S. 6,332,005)

Raleigh (U.S. 6,158,041).

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SOPHIA VLAHOS whose telephone number is 571 272 5507. The examiner can normally be reached on MTWRF 8:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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7/17/2007

  
**MOHAMMED GHAYOUR**  
**SUPERVISORY PATENT EXAMINER**  
